Abstract of the Disclosure

An image sensing apparatus (10) has n photodiodes (PD1 - PDn), signal processors (SP1 - SPn), and output switches (SW1 - SWn) connected to each other. Each signal processor includes an integrator (12) for amplifying an output from the photodiode, a buffer (14) for holding an output from the integrator (12), a first switch (16) inserted between the photodiode and the integrator (12), a second switch (18) for connecting the photodiode and an overflow drain (V_{ofd}), a third switch (20) inserted between the integrator (12) and the buffer (14), a fourth switch (22) for connecting the buffer (14) and a reference voltage (V_{ref}) source, and a controller (24) for controlling the ON/OFF operation of the first to fourth switches based on the comparison result between an output voltage from the integrator (12) and the reference voltage (V_{ref}).